

Seat
No.

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मध - 053

ELECTIVE - II
Neural Network & Fuzzy System
(New) (1313)

P. Pages : 2

Time : Three Hours

Max. Marks : 100

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answersheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. All the questions are compulsory.
5. Solve **any two** bits from each question or unit.
6. Assume suitable data wherever necessary.
7. Each question carries equal marks.
8. Draw well labelled diagram wherever necessary.

UNIT - I

1. a) Explain various modules of neural networks (neuron) in short. **10**
b) Explain various basic learning laws in short. **10**
c) Write a short note on. **10**
i) Competitive learning
ii) Stochastic learning.

UNIT - II

2. a) What are the limitations of perceptron ? Explain with example. **10**
b) What do you mean by linear association ? Explain with example. **10**
c) Explain layered multiple - neuron perceptron with example. **10**

UNIT - III

3. a) Explain various adaptive filtering using neural network. **10**
b) Explain the learning of error back propagation algorithm. **10**
c) Apply EBPA For XOR problem. Describe. **10**

UNIT - IV

4. a) Differentiate Fuzzy set with crisp set. 10
- b) Enlist the properties of Fuzzy set. 10
- c) What is Fuzzy relation ? Explain with example. 10

UNIT - V

5. a) Explain Fuzzy C-mean clustering algorithm with suitable application example. 10
- b) Explain the concept of neuro - Fuzzy hybrids in details. 10
- c) Explain Fuzzy backpropagation network system architecture with its computation. 10
